

21 Sep. 2006

PATENT COOPERATION TREATY

PCT/EP2004/007699

PCT

NOTIFICATION OF TRANSMITTAL  
OF COPIES OF TRANSLATION  
OF THE INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY  
(CHAPTER I OR CHAPTER II)  
OF THE PATENT COOPERATION TREATY)  
(PCT Rules 44bis.3(c) and 72.2)

From the INTERNATIONAL BUREAU

To:

STERNAGEL, FLEISCHER, GODEMEYER & PARTNER  
Braunsberger Feld 29  
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ALLEMAGNE

Date of mailing (day/month/year)  
14 September 2006 (14.09.2006)

Applicant's or agent's file reference  
P12249WO

IMPORTANT NOTIFICATION

International application No.  
PCT/EP2004/007699

International filing date (day/month/year)  
13 July 2004 (13.07.2004)

Applicant

M-REAL OYJ et al

1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).

The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

KR

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

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**TRANSLATION**

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>P12249WO</b>	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. <b>PCT/EP2004/007699</b>	International filing date (day/month/year) <b>13.07.2004</b>	Priority date (day/month/year) <b>08.10.2003</b>
International Patent Classification (IPC) or national classification and IPC <b>D21H19/44, D21H23/22</b>		
Applicant <b>M-REAL OYJ</b>		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 7 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:

- a.  (sent to the applicant and to the International Bureau) a total of \_\_\_\_\_ sheets, as follows:
  - sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
  - sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
- b.  (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s))

, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

<input checked="" type="checkbox"/>	Box No. I	Basis of the report
<input type="checkbox"/>	Box No. II	Priority
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/>	Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/>	Box No. VI	Certain documents cited
<input checked="" type="checkbox"/>	Box No. VII	Certain defects in the international application
<input type="checkbox"/>	Box No. VIII	Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/007699

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

This report is based on translations from the original language into the following language \_\_\_\_\_ which is the language of a translation furnished for the purposes of:

international search (Rule 12.3 and 23.1(b))  
 publication of the international application (Rule 12.4)  
 international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):

the international application as originally filed/furnished  
 the description:  
 pages 1-22 \_\_\_\_\_ as originally filed/furnished  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 the claims:  
 nos. 2-21 \_\_\_\_\_ as originally filed/furnished  
 nos.\* 1 \_\_\_\_\_ as amended (together with any statement) under Article 19  
 nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 the drawings:  
 sheets \_\_\_\_\_ as originally filed/furnished  
 sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3.  The amendments have resulted in the cancellation of:

the description, pages \_\_\_\_\_  
 the claims, nos. \_\_\_\_\_  
 the drawings, sheets/figs \_\_\_\_\_  
 the sequence listing (specify): \_\_\_\_\_  
 any table(s) related to sequence listing (specify): \_\_\_\_\_

4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

the description, pages \_\_\_\_\_  
 the claims, nos. \_\_\_\_\_  
 the drawings, sheets/figs \_\_\_\_\_  
 the sequence listing (specify): \_\_\_\_\_  
 any table(s) related to sequence listing (specify): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/007699

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	<u>2-17, 19</u>	YES
	Claims	<u>1, 18, 20, 21</u>	NO
Inventive step (IS)	Claims		YES
	Claims	<u>1-21</u>	NO
Industrial applicability (IA)	Claims	<u>1-21</u>	YES
	Claims		NO

## 2. Citations and explanations (Rule 70.7)

1.1 The present report makes reference to the following documents:

D1: US 2001/014381 A1 (SAKAGUCHI HIROSHI ET AL)  
16 August 2001 (2001-08-16)

D2: US 2003/022970 A1 (DITTRICH UWE ET AL)  
30 January 2003 (2003-01-30)

D3: EP 0 732 219 A (CANON KK)  
18 September 1996 (1996-09-18)

D4: US 2002/064633 A1 (WAKATA YUICHI ET AL)  
30 May 2002 (2002-05-30)

D5: US 2003/099816 A1 (MUKOYOSHI SHUN-ICHIRO ET AL)  
29 May 2003 (2003-05-29)

D6: US 3 928 707 A (LAUTERBACH GEORGE E ET AL)  
23 December 1975 (1975-12-23)

D7: US 4 908 240 A (AUHORN WERNER ET AL)  
13 March 1990 (1990-03-13)

D8: GB 2 301 785 A (ECC INT LTD)  
18 December 1996 (1996-12-18)

D9: WO 03/012202 A (UERLINGS VIKTOR; BECKER FRANZ JOSEF (DE); ZANDERS FEINPAPIERE AG ()  
13 February 2003 (2003-02-13).

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/007699

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1.2 The present invention relates to a paper substrate and to a preparation applied to the entire surface of at least one side of thereof, said preparation containing at least one surfactant, a pigment and a binding agent. The particle diameter of the pigment is between 1 and 500 nm. The preparation contains binding agent in a ratio of a maximum of 5 parts per weight of binding agent to 100 parts per weight of pigment (relating in each case to the proportion of solids).

1.3 D1 (US-A-2001/0014381) discloses a paper, the paper substrate being coated with  $\text{SiO}_2$  particles with a particle diameter of 7 nm (see claims 1 and 9). The coating composition of examples 4 and 10 also has the aforementioned pigment in combination with a surfactant (see also paragraphs (0118) and (0119)). Furthermore, D1 also discloses that the paper is highly suitable for ink-jet printing. Thus, the subject matter of the current claims 1, 18, 20 and 21 is not novel over the disclosure of D1 (PCT Article 33(2)).

1.4 D2 (US-A-2003/0022970) also discloses a coated paper, the coating composition according to said document containing a surfactant and a pigment (see claims 1, 6, 9, 10 and 18). The particle size of the pigment used should be between 150 and 400 nm (see paragraph (0029)). The present claims 1 and 18 consequently fail to satisfy the requirements of PCT Article 33(2).

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/007699

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1.5 D4 (US-A-2002/0064633) concerns an ink-jet printing paper which has a coating with fine particles of pigment and a binding agent, namely a SiO<sub>2</sub> with a particle size of 20 nm (see claims 1-20). D7 also indicates that a surfactant can be added to the coating composition (see paragraph (0017)). Proceeding from D4, a person skilled in the art would derive from D7 (US-4 908 240) that the presence of a surfactant in the coating composition improves the printing properties of the paper. It therefore appears that D4 and D7, in combination, would lead a person skilled in the art to the subject matter of claims 1, 18, 20 and 21. Thus, the subject matter of claims 1, 18, 20 and 21 is not inventive relative to the disclosures of D4 and D7 (EPC 56).

1.6 The disclosure of the following documents, D3 (EP-A-0 732 219, see claims 1-62), D8 (GB-A-2 301 785, see claims 1-10), D5 (US-A-2003/099816, see claims 1-32) and D7 (US-A-3 928 707, see claims 1-12), is similar to that of the aforementioned documents, D4 and D7, and said documents can therefore also be combined with one another.

1.7 The features of claims 2 to 9 and 13 to 17 are also known from D1, D2, D3, D4, D5, D6, D7 and/or D8 (see the above references to said documents, EPC Articles 54 and 56). The subject matter of

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/007699

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

claims 10 and 11, likewise, does not at present appear to be inventive relative to the aforementioned documents (EPC Article 56).

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

International application No.

PCT/EP2004/007699

**Box No. VII      Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:

2.1 D1, D2, D3, D4, D5, D6, D7 and/or D8 should be acknowledged in the description as the closest prior art (PCT Rule 5.1(a) (i) to (vi)).